

## INTERNATIONAL SEARCH REPORT

onal Application No

IB2004/052031

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 H03M7/00 H03M3/02

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 H03M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, INSPEC, COMPENDEX

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	HARPE P ET AL: "EFFICIENT TRELLIS-TYPE SIGMA DELTA MODULATOR" PREPRINTS OF PAPERS PRESENTED AT THE AES CONVENTION, vol. 114, no. 5845, 22 March 2003 (2003-03-22), XP009038506 the whole document	1-10
A	LOU H: "Viterbi decoder design for the IS-95 CDMA forward link" VEHICULAR TECHNOLOGY CONFERENCE, 1996. MOBILE TECHNOLOGY FOR THE HUMAN RACE., IEEE 46TH ATLANTA, GA, USA 28 APRIL-1 MAY 1996, NEW YORK, NY, USA, IEEE, US, 28 April 1996 (1996-04-28), pages 1346-1350, XP010162610 ISBN: 0-7803-3157-5 page 1349, left-hand column	1-10
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 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

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- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search	Date of mailing of the International search report
14 December 2004	28/12/2004
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel: (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  Gerdes, R

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KATO H: "TRELLIS NOISE-SHAPING CONVERTERS AND 1-BIT DIGITAL AUDIO" PREPRINTS OF PAPERS PRESENTED AT THE AES CONVENTION, vol. 112, no. 5615, 10 May 2002 (2002-05-10), XP009038520 page 2, right-hand column - page 3, left-hand column -----	1-10